# Leveraging Federal Programs

**Camille Mittelholtz**

**US Department of Transportation**

**Office of Transportation Policy Development**

# Introduction

- Sustainable mobility must address climate change
- Sustainable mobility is a systemic issue
- Our colleagues at the state and local levels play a critical role
- The transportation sector accounts for over 1/4 of greenhouse gas emissions, and transportation fuels account for about 2/3 of U.S. oil consumption

# DOT Efforts

- Energy efficiency, congestion mitigation programs, and air quality improvements all reduce GHG emissions
- DOT's Center for Climate Change and Environmental Forecasting
- New Technology:  Fuel Cell Transit Buses, 21st Century Trucks, and efficiency technologies in Intelligent Transportation System
- New Corporate Average Fuel Economy standards -  considering the recently released National Academy of Sciences study

# TEA-21 Federal Assistance Programs

- Provide substantial reductions of GHG's as a side benefit
- Allow funding flexibility for broadest application of funds, as identified by state and local governments

# Congestion Mitigation and Air Quality Improvement Program

- Reduce mobile source emissions and assist attainment of the air quality standards
- Approximately $11 million for CMAQ transportation-air quality projects
- FHWA and FTA provide about $1.3 billion in funding each year for traffic flow improvement, shared ride and demand management, mass transit, and pedestrian and bicycle programs and projects

# Transit Programs

- $42 billion over six years for transit programs, including formula and discretionary programs

# Bicycle Transportation and Pedestrian Walkways

- Funding is available for improved facilities and safety for bicycles and pedestrians under all major TEA-21 programs
  - Surface Transportation Program (STP), especially the Transportation Enhancements and CMAQ programs
  - Transit programs for access to transit stations

# Intelligent Transportation Systems

- Research, development, and operational testing of Intelligent Transportation Systems (ITS)

- Advance the nationwide deployment of these systems as a component of the surface transportation systems

# Transportation and Community and System Preservation Pilot Program

- Research and grants to investigate the relationships between transportation and community and system preservation and private sector-based initiatives
  - TEA-21 authorized a total of $120 million for TCSP for FYs 1999-2003

# TEA-21 Reauthorization?

- A TEA-21 Reauthorization proposal is under development , with a Administration bill expected by early spring 2003

# AIR-21 Program - Inherently Low-Emission Airport Vehicle Pilot Program

- $20 million to demonstrate the effectiveness of alternative fuel vehicles in reducing air emissions in the vicinity of up to 10 airports.
- The pilot programs were announced last year
  - FAA and airport sponsors each provide half the added cost of alternative fuel vehicles or the full cost of fuel dispensing stations. Airport ground support equipment (GSE) and on-road vehicles dedicated to airport services are eligible. Allowable fuels are CNG, LNG, LPG (propane), methanol-85, electricity and hydrogen

# Air-21 Reauthorization?

- DOT developing recommendations for the aviation program reauthorization, with the Administration's recommendations expected early next year

# Other Programs: Advanced Vehicle Technology Programs

- Seek to improve vehicle fuel efficiency and use of alternative fuels
- Many of these programs were established under the Transportation Equity Act of the 21st Century (TEA-21)

Following are some of the accomplishments of programs:

# FreedomCAR

- FreedomCAR will focus on the research needed to develop hydrogen from domestic renewable sources and technologies that utilize hydrogen such as fuel cells

- FreedomCAR will focus on technologies to enable mass production of affordable hydrogen-powered fuel cell vehicles and the hydrogen-supply infrastructure to support them

# 21st Century Truck

- Seeks to develop and demonstrate commercially viable truck propulsion systems technology that will improve the fuel economy of medium- and heavy-duty trucks and buses by two to three times while meeting or exceeding emission standards for 2010 and enhancing safety

# Fuel Cell Transit Buses

- Federal Transit Administration continues research in fuel cell transit buses
- Aimed at demonstrating the viability of fuel cell power plants for transit bus applications, with the objective of commercializing fuel cell technology for full-size transit buses

# Clean Buses

- FTA has funded research in advanced technology buses
- Funds for purchase of clean-fuel buses, construct, modify or leasing facilities, and re-power or retrofit existing buses
- CNG, LNG, bio-diesel, battery alcohol-based fuel, hybrid electric, fuel cell or other zero-emissions technology

# Marine Fuel Cell Program

- Administered by MARAD
- Two 2500 kW marine fuel cell plant design contracts were awarded via the Navy and are underway
- One 500 kW fuel cell plant may be fabricated in future years

# Other Initiatives:

- It All Adds Up to Cleaner Air
  - collaborative effort between FHWA, FTA and EPA
  - informs the public about connections between their transportation choices, traffic congestion, and air pollution
- Commuter Choice
  - DOT and EPA are working with public and private employers to promote increased use of transit
  - employers offer employees a tax-free benefit to not to drive alone to work
- Transit oriented development